



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

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Secretary

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Commissioner

April 6, 2015

Mr. Kevin King  
Vice President/General Manager  
APS, LLC  
40 Herman Melville Boulevard  
New Bedford, MA 02740

**RE: New Bedford**  
Transmittal No.: X259977  
Application No.: SE-14-016  
Class: *NM50*  
FMF No.: 10146  
**AIR QUALITY PLAN APPROVAL**

Dear Mr. King:

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Air and Waste, has reviewed your Limited Plan Application ("Application") listed above. This Application concerns the proposed construction, substantial reconstruction, alteration and/or operation of fish frying operations at your food processing facility located at 40 Herman Melville Boulevard in New Bedford, Massachusetts ("Facility").

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 "Air Pollution Control," regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-J, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP's review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator ("Permittee") must comply in order for the Facility to be operated in compliance with this Plan Approval.

## 1. DESCRIPTION OF FACILITY AND APPLICATION

APS, LLC (APS) operates an existing seafood processing facility that is primarily engaged in the preparation and packaging of seafood products. The facility produces pre-cooked and raw, breaded and non-breaded fish. APS has two (2) existing fish frying lines, identified as Fry Line No. 2 and Fry Line No. 3 that were approved on November 8, 1978 (Application No. SM-78-054-IF) and November 27, 1979 (Application No. SM-79-039-IF), respectively.

The subject of this Application is a third seafood frying line, Fry Line No. 4 at the facility. The Permittee has indicated the previous owner of the facility had installed and was operating the Fry Line No.4, but that emissions from the line had been maintained at *de minimis* levels. Due to the potential emissions of greater than one (1) ton per year of VOC and PM, APS submitted this Application, on May 19, 2014 as modified on July 14, 2014, for continued operation of Fry Line No. 4.

Fry Line No. 4 is primarily used to fry breaded and non-breaded fish portions, as well as limited quantities of other seafood products. Fry Line No. 4 has a maximum hourly processing rate of 8,333 pounds of fish, although typical fish products are processed at a slower rate (between 3,500 and 5,100 pounds per hour). Air emissions in the form of particulates (e.g. vegetable oil mist, smoke) and VOC are generated from the frying process. Particulate emissions from Fry Line No. 4 will be controlled by a United Air Specialists, Inc., Smog Hog®, or equivalent, Air Pollution Control System.

The Facility has provided information demonstrating that they are an area source of Hazardous Air Pollutants (HAP), as listed in the 1990 Clean Air Act (CAA) Amendments, Section 112(b). Permittee has proposed, as part of this application, HAP emission limits for frying operations, including existing Fry Line No. 2 and Fry Line No. 3, as defined in Table 2.

Best Available Control Technology for Fry Line No. 4 is defined in Table 2 below.

## 2. EMISSION UNIT (EU) IDENTIFICATION

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this Plan Approval:

Table 1			
EU#	Description	Design Capacity	Pollution Control Device (PCD)
EU4	Existing Fry Line No. 2 Design Process Engineering Indirect Fryer Model F-10	Frozen Fish/Seafood: 8,333 lbs/hour	Existing mist eliminator filter
EU5	Existing Fry Line No. 3 Design Process Engineering Fryer	Frozen Fish/Seafood: 8,333 lbs/hour	Existing mist eliminator filter

<b>Table 1</b>			
<b>EU#</b>	<b>Description</b>	<b>Design Capacity</b>	<b>Pollution Control Device (PCD)</b>
EU7	Fry Line No. 4 Frigoscandia/Stein Model TFF-3419	Frozen Fish/Seafood: 8,333 lbs/hour	United Air Specialists, Inc. Smog-Hog® Model PSG-11-2 (or equivalent)

**Table 1 Key:**

EU# = Emission Unit Number

No. = Number

PCD = Pollution Control Device

Lbs/hour = pounds per hour

### 3. APPLICABLE REQUIREMENTS

#### A. OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2 below:

<b>Table 2</b>			
<b>EU#</b>	<b>Operational / Production Limit</b>	<b>Air Contaminant</b>	<b>Emission Limit</b>
EU7	1. Throughput $\leq$ 3,100 tons of fish per month	PM	0.001 TPM <sup>(Note 1)</sup>
			0.01 TPY <sup>(Note 1)</sup>
	2. Throughput $\leq$ 36,500 tons of fish per year	VOC	0.43 TPM <sup>(Note 2)</sup>
			5.11 TPY <sup>(Note 2)</sup>
	3. Operate and maintain associated air pollution control equipment in accordance with manufacturer's specified recommendations.	HAP <sub>single</sub>	0.08 TPM <sup>(Note 3)</sup>
			0.92 TPY <sup>(Note 3)</sup>
		HAP <sub>total</sub>	0.24 TPM <sup>(Note 4)</sup>
			2.89 TPY <sup>(Note 4)</sup>
		Opacity	No visible emissions
EU4, EU5, EU7 (combined)	4. Throughput $\leq$ 109,496 tons of fish per year	HAP <sub>single</sub>	2.77 TPY <sup>(Note 3)</sup>
		HAP <sub>total</sub>	8.66 TPY <sup>(Note 4)</sup>

**Table 2 Notes:**

Note 1 – PM emissions are based on a before control emission factor of 0.1 lb of total PM per ton of fish [reference: *Development of Emission Test Methods and Emission Factors for Various Commercial Cooking Operations*, TO-98-14-3, American Society of Heating, Refrigeration, and Air Conditioning Engineers (1998)] and an overall PM control efficiency of 99.3% for particles 0.3 micron at a flow rate of 713 acfm based on testing provided by the control equipment manufacturer.

Note 2 – VOC emissions are based on an emission factor of 0.28 lb VOC per ton of fish [reference: *Development of Emission Test Methods and Emission Factors for Various Commercial Cooking Operations*, TO-98-14-3, American Society of Heating, Refrigeration, and Air Conditioning Engineers (1998)]

Note 3 – High individual HAP (Acetaldehyde) emissions are based on an emission factor of 0.181 pound of Acetaldehyde per pound of VOC [reference: “*Measurement of Emissions from Air Pollution Sources. 4. C1-C27 Organic Compounds from Cooking with Seed Oils*”, Schaur, J.J.; Kleeman, M.J.; Cass, G.R.; Simoneit, B.R.T., Environmental Science and Technology, 2002, Volume 36, No 4, pp 567-575.]

Note 4 – Combined HAP emissions are based on emission factor of 0.565 pound of HAP per pound of VOC [reference: “*Measurement of Emissions from Air Pollution Sources. 4. C1-C27 Organic Compounds from Cooking with Seed Oils*”, Schaur, J.J.; Kleeman, M.J.; Cass, G.R.; Simoneit, B.R.T., Environmental Science and Technology, 2002, Volume 36, No 4, pp 567-575 and from data for heated canola oil (180 degree Celsius) presented in “*Comparison of Volatile Aldehydes Present in the Cooking Fumes of Extra Virgin Olive, Olive, and Canola Oils*” Fullana, A.; Carbonell-Barrachina, A.A.; Sidhu, S., Journal of Agricultural and Food Chemistry, 09/2004, 52(16):5207-14.]

**Table 2 Key:**

ACFM = actual cubic feet per minute

EU# = Emission Unit Number

HAP<sub>single</sub> = Maximum individual Hazardous Air Pollutant as listed in the 1990 Clean Air Act (CAA) Amendments, Section 112(b).

HAP<sub>total</sub> = Total combined Hazardous Air Pollutants as listed in the 1990 Clean Air Act (CAA) Amendments, Section 112(b).

PM = Total Particulate Matter including PM<sub>10</sub> and PM<sub>2.5</sub>

PM<sub>10</sub> = Particulate Matter less than or equal to 10 microns in diameter

PM<sub>2.5</sub> = Particulate Matter less than or equal to 2.5 microns in diameter

VOC = Volatile Organic Compounds

TPM = tons per month

TPY = tons per consecutive 12-month period

≤ = less than or equal to

**B. COMPLIANCE DEMONSTRATION**

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5 below:

<b>Table 3</b>	
<b>EU#</b>	<b>Monitoring and Testing Requirements</b>
EU7	1. The Permittee shall monitor and maintain Air Pollution Control Device in accordance with Manufacturer’s recommendations to ensure proper operation.
EU4, EU5, EU7	2. The Permittee shall monitor the fish processed, by weight, on each fry line for each month and each consecutive twelve-month period.
Facility-wide	3. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	4. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13

**Table 3 Key:**

CMR = Code of Massachusetts Regulations

EU# = Emission Unit Number

MassDEP = Massachusetts Department of Environmental Protection

USEPA = United States Environmental Protection Agency

<b>Table 4</b>	
<b>EU#</b>	<b>Record Keeping Requirements</b>
EU7	1. The Permittee shall maintain records of all manufacturer recommended monitoring and maintenance performed on the approved Pollution Control Device.
	2. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for EU 7 and the associated Pollution Control Device approved herein on-site.
	3. The Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s), PCD(s) and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.
	4. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s), PCD(s) and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
EU4, EU5, EU7	5. The Permittee shall maintain records of monitoring and testing as required by Table 3.
	6. The Permittee shall maintain adequate records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve month period (current month plus prior eleven months). These records shall be compiled no later than the 15 <sup>th</sup> day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at <a href="http://www.mass.gov/dep/air/approvals/aqforms.htm#report">http://www.mass.gov/dep/air/approvals/aqforms.htm#report</a> .
Facility- wide	7. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	8. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.
	9. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.

**Table 4 Key:**

CMR = Code of Massachusetts Regulations  
EU# = Emission Unit Number  
MassDEP = Massachusetts Department of Environmental Protection  
PCD = Pollution Control Device  
SOMP = Standard Operating and Maintenance Procedure  
USEPA = United States Environmental Protection Agency

<b>Table 5</b>	
<b>EU#</b>	<b>Reporting Requirements</b>
EU7	1. The Permittee shall notify the Southeast Regional Office of MassDEP, BAW C&E Chief by telephone (508) 946-2878, or fax (508) 947-6557, as soon as possible, but no later than one (1) business day after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to BAW C&E Chief at MassDEP within three (3) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
Facility-wide	2. The Permittee shall provide a copy to MassDEP of any record required to be maintained by this Plan Approval within 30-days from MassDEP's request.
	3. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	4. The Permittee shall report to MassDEP, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval.
	5. The Permittee shall submit to MassDEP for approval a stack emission pretest protocol, at least 30 days prior to emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.
	6. The Permittee shall submit to MassDEP a final stack emission test results report, within 45 days after emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.

**Table 5 Key:**

BAW = Bureau of Air and Waste  
CMR = Code of Massachusetts Regulations  
C&E = Compliance and Enforcement  
EU# = Emission Unit Number  
MassDEP = Massachusetts Department of Environmental Protection

#### **4. SPECIAL TERMS AND CONDITIONS**

The Permittee is subject to, and shall comply with, the following special terms and conditions:

- A. The Permittee shall comply with the Special Terms and Conditions as contained in Table 6 below:

<b>Table 6</b>	
<b>EU#</b>	<b>Special Terms and Conditions</b>

<b>Table 6</b>	
<b>EU#</b>	<b>Special Terms and Conditions</b>
EU7	1. The Permittee shall take any and all measures necessary such that the operation of EU7 will not result in visible emissions (i.e. zero percent opacity) exclusive of uncombined water vapor.
EU7	2. The Permittee shall notify the MassDEP when the approved Pollution Control Device (PCD) is installed and operational. The PM emissions established in Table 2 will not take effect until the installation of the PCD is complete. The Permittee shall ensure that the approved Pollution Control Device is installed and operational no later than ninety (90) days after the date of this approval.
Facility-wide	3. Any prior Plan Approvals issued under 310 CMR 7.02 shall remain in effect unless specifically changed or superseded by this Plan Approval. The Facility shall not exceed the emission limits and shall comply with approved conditions specified in the prior Plan Approval(s) unless specifically altered by this Plan Approval.

**Table 6 Key:**

CMR = Code of Massachusetts Regulations  
EU# = Emission Unit Number  
PCD = Pollution Control Device  
PM = Total Particulate Matter including PM<sub>10</sub> and PM<sub>2.5</sub>

- B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including but not limited to rain protection devices known as “shanty caps” and “egg beaters.” The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7 below, for the Emission Units that are regulated by this Plan Approval:

<b>Table 7</b>				
<b>EU#</b>	<b>Stack Height Above Ground (feet)</b>	<b>Stack Inside Exit Dimensions (feet)</b>	<b>Stack Gas Exit Velocity Range (feet per second)</b>	<b>Stack Gas Exit Temperature Range (°F)</b>
EU7	51	1.5	6.6	140

**Table 7 Key:**

EU# = Emission Unit Number  
°F = Degree Fahrenheit

## **5. GENERAL CONDITIONS**

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the



Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).

- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.
- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.
- J. The Permittee shall conduct emission testing, if requested by MassDEP, in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13. If required, a pretest protocol report shall be submitted to MassDEP at least 30 days prior to emission testing and the final test results report shall be submitted within 45 days after emission testing.
- K. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between

provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

## **6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT**

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain “Fail-Safe Provisions,” which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

## **7. APPEAL PROCESS**

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts  
Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact Peter Russell by telephone at 508-946-2821, or in writing at the letterhead address.

Sincerely,

This final document copy is being provided to you electronically by the  
Department of Environmental Protection. A signed copy of this document  
is on file at the DEP office listed on the letterhead.

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Thomas Cushing  
Permit Chief  
Bureau of Air and Waste

Enclosure

ecc: New Bedford Board of Health  
New Bedford Fire Department  
APS, LLC – Erika Pouliot  
GZA GeoEnvironmental – Ken Boivin, Melissa Kenerson  
MassDEP/Boston – Yi Tian  
MassDEP/SERO – Maria Pinaud, Laura Black, Peter Russell